

ABSTRACT

5 Method of determining the velocity V and anellipticity η parameters for processing seismic traces in a common midpoint (CMP) gather comprising: -a preliminary step to define a plurality of nodes (dtn, τ_o) , for each node (dtn, τ_o) defined in
10 the preliminary step, the following steps: -for static NMO correction of traces in the CMP gather as a function of the values of the said parameters dtn and τ_o at the node considered, and calculation of the semblance function associated with the said NMO correction for the node considered; and -for each
15 picked time t_o , a step including determination of the maximum semblance node $(dtn(t_o), \tau_o(t_o))$, -and a final step to convert the $dtn(t_o)$ and $\tau_o(t_o)$ parameters, so as to obtain the velocity t_o and anellepticity $\eta(t_o)$ laws.